Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

What is claimed is:

1-46. (canceled)

47. (Currently Amended) An apparatus for determining a condition of a region of a tissue sample, the apparatus comprising:

illuminating optics for illuminating a region of a tissue sample with electromagnetic radiation incident at a first angle and subsequently illuminating the region of the tissue sample with electromagnetic radiation incident at a second angle;

collecting optics for collecting electromagnetic radiation from the region of the tissue sample; and

a processor configured to determine a condition of the region of the tissue sample using representative data selected from data comprising ~~at least one of~~:

a first set of spectral data corresponding to the collected radiation from the region during illumination with radiation incident at the first angle; and

a second set of spectral data corresponding to the collected radiation from the region during illumination with radiation incident at the second angle.

48. (Previously Presented) The apparatus of claim 47, wherein the processor is further adapted to select the representative data based at least in part on a subset of the first set of spectral data and a subset of the second set of spectral data.

49. (Previously Presented) The apparatus of claim 47, wherein the first set of spectral data comprises reflectance spectral data and the second set of spectral data comprises reflectance spectral data.

50. (Previously Presented) The apparatus of claim 47, wherein at least one of the first set of spectral data and the second set of spectral data comprises fluorescence spectral data.

51. (Previously Presented) The apparatus of claim 47, wherein the condition is a state of health.

52. (Previously Presented) The apparatus of claim 51, wherein the state of health comprises at least one of the conditions of normal squamous tissue, metaplasia, CIN I, CIN II, CIN III, CIS, and cancer.

53. (Previously Presented) The-apparatus of claim 47, wherein the tissue sample comprises at least one of the group consisting of colorectal, gastroesophageal, urinary bladder, lung, and skin tissue.

54. (Previously Presented) The apparatus of claim 47, wherein the tissue sample comprises cervical tissue.

55. (Previously Presented) The apparatus of claim 47, wherein the tissue sample comprises epithelial cells.

56. (Previously Presented) An apparatus for determining whether spectral data obtained from a region of a tissue sample are affected by an artifact, the apparatus comprising:

illuminating optics for illuminating a region of a tissue sample with electromagnetic radiation incident at a first angle and subsequently illuminating the region of the tissue sample with electromagnetic radiation incident at a second angle;

collecting optics for collecting electromagnetic radiation from the region of the tissue sample; and

a processor adapted to:

obtain a first set of spectral data corresponding to collected radiation from the region during illumination of the region with radiation incident at the first angle;

obtain a second set of spectral data corresponding to collected radiation from the region during illumination of the region with radiation incident at the second angle; and

determine whether the first set of spectral data is affected by an artifact based at least in part on a subset of the first set of spectral data and a subset of the second set of spectral data.

57. (Previously Presented) The apparatus of claim 56, wherein the artifact comprises a lighting artifact.

58. (Previously Presented) The apparatus of claim 57, wherein the lighting artifact comprises glare.

59. (Previously Presented) The apparatus of claim 57, wherein the lighting artifact comprises shadow.

60. (Previously Presented) The apparatus of claim 56, wherein the artifact comprises an obstruction.

61. (Previously Presented) The apparatus of claim 60, wherein the obstruction comprises blood.

62. (Previously Presented) The apparatus of claim 60, wherein the obstruction comprises a portion of at least one member of the group consisting of a speculum and a smoke tube.

63. (Previously Presented) The apparatus of claim 60, wherein the obstruction comprises mucus.

64. (Previously Presented) The apparatus of claim 56, wherein the first set of spectral data comprises reflectance spectral data and the second set of spectral data comprises reflectance spectral data.

65. (Previously Presented) The apparatus of claim 56, wherein the processor is further configured to obtain a third set of spectral data, and wherein the third set of spectral data comprises fluorescence spectral data.

66. (Previously Presented) The apparatus of claim 56, wherein the processor is configured to determine whether the first set of spectral data is affected by an artifact by computing a difference between R_1, a member of the first set of spectral data, and R_2, a member of the second set of spectral data, and comparing the difference to a constant, where R_1 and R_2correspond to at least approximately identical wavelengths.

67. (Previously Presented) The apparatus of claim 66, wherein the difference is a percent difference.

68. (Currently Amended) An apparatus for determining whether spectral data corresponding to a region of a tissue sample is affected by an artifact, the apparatus comprising:

illuminating optics for illuminating a region of a tissue sample with electromagnetic radiation incident at a first angle and subsequently illuminating the region of the tissue sample with electromagnetic radiation incident at a second angle;

collecting optics for collecting ~~electrogmagnetic~~ electromagnetic radiation from the region of the tissue sample; and

a processor adapted to:

obtain a first set of reflectance spectral data corresponding to collected radiation from the region during illumination of the region with radiation incident at the first angle;

obtain a second set of reflectance spectral data corresponding to collected radiation from the region during illumination of the region with radiation incident at the second angle;

obtain a set of fluorescence spectral data corresponding to the region; and

determine whether any of the first set of reflectance spectral data, the second set of reflectance spectral data, and the set of fluorescence spectral data are affected by an artifact based at least in part on at least one of the following:

a subset of the first set of reflectance spectral data;

a subset of the second set of reflectance spectral data; and

a subset of the set of fluorescence spectral data.

69. (Previously Presented) An apparatus for determining a characteristic of a region of a tissue sample, the apparatus comprising:

illuminating optics for illuminating a region of a tissue sample with electromagnetic radiation incident at a first angle and subsequently illuminating the region of the tissue with electromagnetic radiation incident at a second angle;

collecting optics for collecting electromagnetic radiation from the region of the tissue sample; and

a processor configured to:

obtain a first set of reflectance spectral data corresponding to collected radiation from the region during illumination of the region with radiation incident at the first angle;

obtain a second set of reflectance spectral data corresponding to collected radiation from the region during illumination of the region with radiation incident at the second angle;

determine whether at least one of the first set of reflectance data and the second set of reflectance data is affected by an artifact based at least in part on a subset of the first set of reflectance data and a subset of the second set of reflectance data;

reject at least one member of at least one of the first set of reflectance data and the second set of reflectance data determined to be affected by the artifact; and

determine a characteristic of the region of the tissue sample based at least in part on at least one member of at least one of the first set of reflectance data and the second set of reflectance data not rejected.

70. (Previously Presented) The apparatus of claim 69, wherein the processor is further adapted to obtain a set of fluorescence spectral data corresponding to collected radiation from the region, and to determine the condition of the region of the tissue sample based at least in part on at least one member of at least one of the first set of reflectance data and the second set of reflectance data and at least one member of the set of fluorescence spectral data.

71. (Previously Presented) The apparatus of claim 47, wherein said first angle and said second angle are substantially equal and opposite relative to a collection axis.

72. (Previously Presented) The apparatus of claim 47, wherein said illuminating optics are configured to perform an illumination sequence in which said region is alternately illuminated at said first and second angles, and to repeat said illumination sequence at each of one or more different regions of said tissue sample.

73. (Previously Presented) The apparatus of claim 47, wherein said first angle is an average angle and said second angel is an average angle.

74. (Previously Presented) The apparatus of claim 56, wherein said first angle and said second angle are substantially equal and opposite relative to a collection axis.

75. (Previously Presented) The apparatus of claim 56, where said illuminating optics are configured to perform an illumination sequence in which said region is alternately illuminated at said first and second angles, and to repeat said illumination sequence at each of one or more different regions of said tissue sample.

76. (Previously Presented) The apparatus of claim 56, wherein said first angle is an average angle and said second angle is an average angle.

77. (Previously Presented) The apparatus of claim 68, wherein said first angle and said second angle are substantially equal and opposite relative to a collection axis.

78. (Previously Presented) The apparatus of claim 68, wherein said illuminating optics are configured to perform an illumination sequence in which said region is alternately illuminated at said first and second angles, and to repeat said illumination sequence at each of one or more different regions of said tissue sample.

79. (Previously Presented) The apparatus of claim 68, wherein said first angle is an average angle and said second angle is an average angle.

80. (Previously Presented) The apparatus of claim 69, wherein said first angle and said second angle are substantially equal and opposite relative to a collection axis.

81. (Previously Presented) The apparatus of claim 69, wherein said illuminating optics are configured to perform an illumination sequence in which said region is alternately illuminated at

said first and second angles, and to repeat said illumination sequence at each of one or more different regions of said tissue sample.

82. (Previously Presented) The apparatus of claim 69, wherein said first angle is an average angle and said second angle is an average angle.

83. (Previously Presented) The apparatus of claim 47, wherein said first angle is different from said second angle.

84. (Previously Presented) The apparatus of claim 56, wherein said first angle is different from second angle.

85. (Previously Presented) The apparatus of claim 68, wherein said first angle is different from said second angle.

86. (Previously Presented) The apparatus of claim 69, wherein said first angle is different from said second angle.

87. (New) The apparatus of claim 47, wherein said electromagnetic radiation is white light.

88. (New) The apparatus of claim 56, wherein the electromagnetic radiation is white light.

89. (New) The apparatus of claim 68, wherein the electromagnetic radiation is white light.

90. (New) The apparatus of claim 69, wherein the electromagnetic radiation is white light.